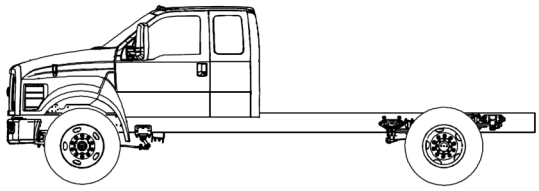
DO NOT DESTROY: THIS MANUAL IS REQUIRED BY LAW. KEEP UNTIL THE VEHICLE IS COMPLETED BY THE FINAL STAGE MANUFACTURER.

2024
MEDIUM TRUCK
INCOMPLETE VEHICLE MANUAL

Incomplete Vehicle Types For This Manual



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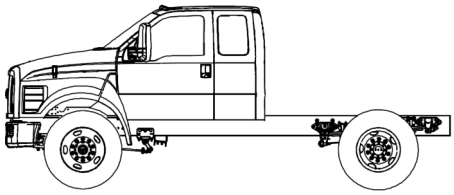

MEDIUM TRUCK TRACTOR CAB

September 2022

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INTRODUCTION

Information in this manual is furnished pursuant to United States and Canadian safety regulations or, in some cases where the information is not required by regulation, is furnished for the convenience of intermediate and final stage vehicle manufacturers. Incomplete vehicles manufactured for sale or importation into the U.S. are specially equipped for the United States. The descriptions and statements contained in this manual relate only to motor vehicle safety standards issued under the National Traffic and Motor Vehicle Safety Act of 1966 as amended.

Incomplete vehicles manufactured for sale or importation into Canada are specially equipped for Canada. This vehicle conforms to the applicable Canadian Motor Vehicle Safety Standards (CMVSS) on the date of manufacture printed on the cover of this manual. Requirements unique to vehicles for use in Canada are identified in the “Statements of Conformity” and the “Canadian Vehicles” sections of this manual.

The “Emission Certification Information” section of this manual contains information regarding conformity to emission regulations of the United States, Canada, and the State of California, and to fuel economy regulations of the United States.

This manual should not be relied upon with respect to compliance with any regulation of the Federal Highway Administration or regulations issued pursuant to the Occupational Safety and Health Act (OSHA) or any other Federal, state, provincial, or local regulations governing the performance or construction of motor vehicles (except for those requirements shown in the “Emissions Certification Information” section of this manual under the headings “Unleaded Gasoline Label,” “Warranty and Maintenance,” and “Emission Control Information Label”). It is the responsibility of the final stage manufacturer to determine applicability and comply with any Federal, state, or local requirements not detailed in this manual.

IMPORTANT:

UNITED STATES VEHICLES

Ford Motor Company has endeavored, whenever possible, to state the specific conditions under which an incomplete vehicle may be completed to conform to each applicable Federal Motor Vehicle Safety Standard. These specific statements are intended to aid subsequent stage manufacturers in avoiding instances of inadvertent noncompliance to particular standards.

Note that the final responsibility for the compliance of the completed vehicle rests with the final stage manufacturer who is required by law to certify, as prescribed by Title 49, Code of Federal Regulations, Part 567.5, that the completed vehicle conforms to all applicable Federal Motor Vehicle Safety Standards and all applicable federal, state and California emission/ noise standards.

Ford Motor Company does not make any representation as to the appropriateness of modifications for any particular application other than expressly stated herein. Intermediate and final stage manufacturers must exercise proper engineering judgment to determine if a modification is appropriate for their specific application.

IMPORTANT:

UNITED STATES AND CANADIAN VEHICLES

Alterations to an incomplete vehicle by someone other than Ford Motor Company, or damage in transit, may affect compliance statements that are furnished in this manual, or representations that are printed on the label that may be affixed to a vehicle.

U.S. & CANADIAN MOTOR VEHICLE SAFETY STANDARDS
(Application By Vehicle Type—For Reference)

Standard Number	Title of Standard	Vehicle Type		Equipment (1)
		Truck	Truck Tractor	
101	Controls and Displays	X	X	
102	Transmission Shift Lever Sequence, Starter Interlock and Transmission Braking Effect	X	X	
103	Windshield Defrosting and Defogging Systems	X	X	
104	Windshield Wiping and Washing Systems	X	X	
105	Hydraulic and Electric Brake Systems	X	X	
106	Brake Hoses	X	X	X
108	Lamps, Reflective Devices and Associated Equipment	X	X	X
111	Rear Visibility	X	X	
113	Hood Latch System	X	X	
115	Vehicle Identification Number (Canada only)	X	X	
116	Motor Vehicle Brake Fluids	X	X	X
119 (2)	New Pneumatic Tires for Motor Vehicles with a GVWR of More Than 4,536 Kilograms (10,000 pounds) and Motorcycles			X
120	Tire Selection and Rims and Motor Home / Recreation Vehicle Trailer Load Carrying Capacity Information for Motor Vehicles with a GVWR of More Than 4,356 Kilograms (10,000 Pounds)	X	X	X
121	Air Brake Systems	X	X	X
124	Accelerator Control Systems	X	X	
136	Electronic Stability Control Systems for Heavy Vehicles		X	X
205	Glazing Materials	X	X	X
206	Door Locks and Door Retention Components	X	X	X
207	Seating Systems	X	X	
208	Occupant Crash Protection	X(3)	X(3)	X
209	Seat Belt Assemblies	X	X	X
210	Seat Belt Assembly Anchorages	X	X	X
213	Child Restraint Systems (U.S. Only)	X	X	X
213.4	Built-In Restraint Systems and Built-In Booster Seats (Cananda Only)	X	X	
217	Bus Emergency Exits and Window Retention Components	X		
301.1	LPG Fuel System Integrity (Canada only)	X	X	
301.2	CNG Fuel System Integrity (Canada only)	X	X	
302	Flammability of Interior Materials	X	X	
304	Compressed Natural Gas Fuel Container Integrity (U.S. only)	X	X	
403	Platform Lift Systems for Motor Vehicles			X
404	Platform Lift Installations in Motor Vehicles	X	X	
PART 393.67	Parts and Accessories Necessary for Safe Operation – Liquid Fuel Tanks	X	X	X
PART 565	Vehicle Identification Number (VIN) Requirements (U.S. only)	X	X	
PART 567	Certification (Label Content & Location)	X	X	
1106	Noise Emissions (Canada only)	X	X	

1) *This column identifies Standards that have equipment/component requirements.*
2) *Canadian 119 requirements are found in the Motor Vehicle Tire Safety Standards*
3) *Injury criteria are applicable to vehicles with a GVWR of 3856 kg [8500 lb] or less and an unloaded vehicle weight (UVW) of 2495 kg [5500 lb] or less except, in the United States, walk-in van-type trucks and vehicles designed to be sold exclusively to the U.S. Postal Service and, in Canada, vehicles manufactured for operation by persons with disabilities.*

GENERAL INFORMATION

Information in this section is provided pursuant to Title 49, Code of Federal Regulations, Part 568 – "Vehicles Manufactured in Two or More Stages", and Section 6 of the Canadian Motor Vehicle Safety Regulations (CMVSR) – "Vehicles Manufactured in Stages." Part 568 specifies that final stage manufacturers must complete vehicles in compliance with all applicable Federal Motor Vehicle Safety Standards and affix a label to each incomplete vehicle that is completed in accordance with 49CFR567.5. Section 6.6 of the CMVSR provides labeling requirements for vehicles that are to be sold in Canada.

DIRECTIONS

STATEMENTS OF CONFORMITY

The "Statements of Conformity" section of this manual lists the Federal Motor Vehicle Safety Standards in effect on the date of manufacture of this incomplete vehicle that are applicable to the type(s) of completed vehicles into which this incomplete vehicle may be manufactured. The date of vehicle manufacture is shown on the label affixed to the cover of this manual. These statements, in many cases, apply to specific types of incomplete or completed vehicles and identify GVWR and UVW weight ranges. These statements may be used and relied on by any intermediate and/or final stage manufacturer as a basis for certification.

The incomplete vehicle type is identified by the 5th, 6th, and 7th digits of the Vehicle Identification Number (VIN). The completed vehicle types to which this incomplete vehicle may appropriately be completed is printed on the label that is affixed to the cover of this document under the heading "May Be Completed As,". The Completed Vehicle Types chart on a following page identifies how various incomplete vehicles with an optional prep package or trim code may be completed.

Each statement of conformity is identified by a safety standard number located at the left margin. Because there may be multiple statements of conformity for each safety standard, use care to select the appropriate statement(s). Unique CMVSS requirements will be identified at the conclusion of the representations for a particular safety standard.

Compliance statements provided in this manual are of the three following types (49CFR568.4):

Type I A statement that the vehicle, when completed, will conform to the standard if no alterations are made in identified components of the incomplete vehicle.

Type II A statement of specific conditions of final manufacture under which the incomplete vehicle manufacturer specifies that the completed vehicle will conform to the standard.

Type III A statement that conformity with the standard cannot be determined based upon the components supplied on the incomplete vehicle, and that the incomplete vehicle manufacturer makes no representation as to conformity with the standard.

DEFINITION OF TERMS

The definition of certain important terms used in this document can be found in the Ford General Body Builders Layout Book which can be accessed via the web at https://fordbbas.com under "Publications".

Some terms are followed by an abbreviation that may be used throughout this publication.

IMPORTANT:

To rely on the compliance representations in this manual, the incomplete vehicles must be completed as one of the completed vehicle types designated on the label affixed to the cover of this manual, and must not exceed the specified GVWR, GAWRs, or the Unloaded Vehicle Weight limits when specified in this manual.

VEHICLE SPECIAL ORDER (VSO) VEHICLES

VSO vehicles can be identified by a number with the letters VSO in the lower right area of the Incomplete Vehicle Information Label which is affixed to the driver-door lock pillar. See the sample labels in Figure 1.

The Statements of Conformity section of this manual includes compliance representations for certain VSO vehicles – these vehicles are identified in the Completed Vehicle Types chart. Other VSO vehicles may require additional Statements of Conformity, which would be included in a Supplement Section of this manual.

FORD BODY BUILDER ASSISTANCE

Throughout this Incomplete Vehicle Manual you will find reference to information found in the Ford *Body Builders Layout Books* which contain best practices (see the "General" BBLB) as well as specific recommendations and specifications (see the BBLB for the vehicle line in question) to assist subsequent stage manufacturers in completing incomplete vehicles. The Ford *Body Builders Layout Books* can be accessed via the web at https://fordbbas.com under "Publications".

The Ford Body Builder Advisory Service may be consulted regarding information contained in this manual via the following methods:

- Call (877) 840-4338
- E-mail via the web at https://fordbbas.com under "Contact Us".

FORD SERVICE PUBLICATIONS

Many Ford Service Publications pertain to specific model year and vehicle types. Ford Service Publications are available by subscription via the web at www.motorcraft.com. The following publications are a few of many manuals which are available from Helm Incorporated; call: 1-800-782-4356

- Ford Truck Shop Manuals
- Ford Towing Manual
- Ford Electrical & Vacuum Trouble Shooting Manual
- Ford Wiring Diagram

INCOMPLETE VEHICLE MANUAL COVER

The cover of this manual depicts the incomplete vehicle configurations for which compliance representations are contained in this manual. Also, a label is affixed to the cover which includes the Vehicle Identification Number (VIN) for the specific vehicle to which this manual belongs. The label identifies the following information which pertains only to the vehicle with the corresponding VIN:

- GVWR
- Front and rear GAWRs
- Tire and wheel size
- Cold tire inflation pressure (kPa/PSI)
- Completed vehicle type(s) into which the incomplete vehicle may be manufactured
- Optional prep package when the vehicle is so equipped

INCOMPLETE VEHICLE INFORMATION LABEL

All incomplete vehicles represented in this manual and manufactured by Ford Motor Company will have an Incomplete Vehicle Information Label provided as follows:

- For all F-53 / F-59 Chassis, the label will be provided inside the protective plastic bag for this manual. This label is to be permanently affixed in an acceptable location per 49CFR567.4.

Samples of typical labels are shown in Figure 1.

The 5th, 6th, and 7th positions of the Vehicle Identification Number (VIN) will identify the incomplete vehicle type. These three positions are used in the Completed Vehicle Types chart.

The California Air Resources Board (CARB) requires a Vehicle Identification Number (VIN) Label having a noncontact barcode reading wand capability. The barcode located directly below the VIN on the Incomplete Vehicle Information Label, when provided, will comply with this regulation.

The Canadian Motor Vehicle Safety Act and Regulations require installation of an Incomplete Vehicle Information Label with the National Safety mark on it on vehicles manufactured for sale in Canada. A sample of a typical label is shown in Figure 1.

OPTIONAL PREP PACKAGES

Incomplete vehicles produced by Ford Motor Company, in some instances, are equipped with an optional prep package.

- Medium Truck optional prep packages include the Ambulance Prep and Fire / Rescue Prep.

The Completed Vehicle Types chart on the following page will identify incomplete vehicles and an optional prep package or trim code that may be required by Ford Motor Company if final stage manufacturers wish to rely on the Statements of Conformity or, in some cases, preserve the Ford Motor Company new vehicle warranty.

If an incomplete vehicle is equipped with an optional prep package, both the Incomplete Vehicle Information Label affixed to the vehicle and the label on the front of this manual will identify the prep package.

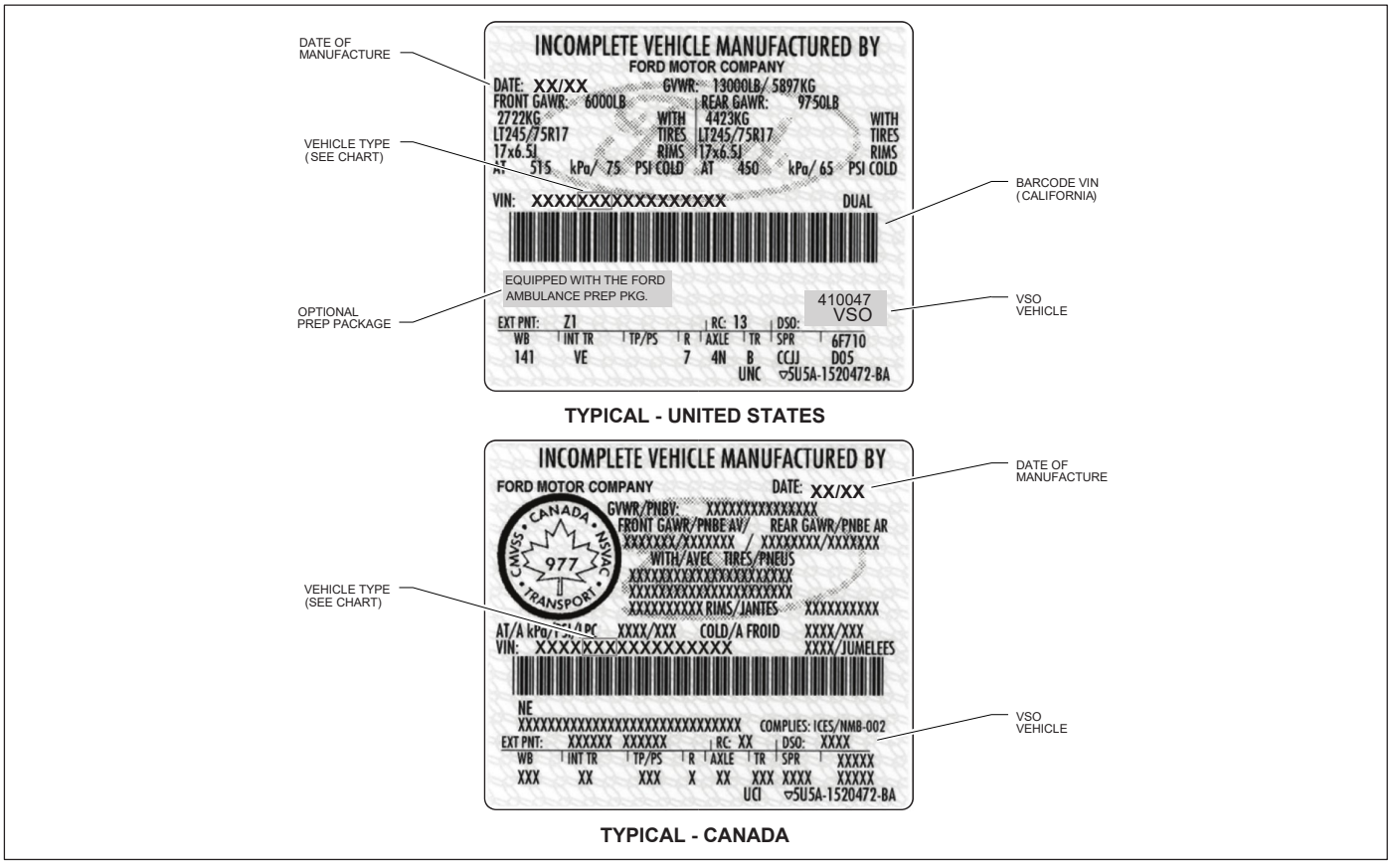

FIGURE 1 - SAMPLE INCOMPLETE VEHICLE INFORMATION LABELS

COMPLETED VEHICLE TYPES

5TH, 6TH, 7TH VIN DIGIT	INCOMPLETE VEHICLES	COMPLETED VEHICLES		
		TRUCK	TRUCK TRACTOR	MPV (AMBULANCE)
MEDIUM TRUCK SERIES				
F6A, X6A, W6A	F-650 Straight Frame with Gasoline Engine	X		
F6D, X6D, W6D	F-650 Straight Frame with Diesel Engine	X,1		2
F6B, X6B, W6B	F-650 Proloader Frame with Gasoline Engine	X		
F6E, X6E, W6E	F-650 Proloader Frame with Diesel Engine	X,1		2
F6T, X6T, W6T	F-650 Diesel Truck Tractor		X	
F7A, X7A, W7A	F-750 Straight Frame with Gasoline Engine	X		
F7D, X7D, W7D	F-750 Straight Frame with Diesel Engine	X,1		2
F7T, X7T, W7T	F-750 Diesel Truck Tractor		X	

IMPORTANT: **Ford Motor Company makes no representation that the completed vehicle types listed above are the only vehicle types appropriate for the incomplete vehicles listed. However, if a unit is completed as a vehicle type other than as listed above, the Statements of Conformity may not be applicable.**

(1) Fire / Rescue Prep Package

(2) *Ambulance Prep Package*

STATEMENTS OF CONFORMITY

The following Statements of Conformity apply to vehicles that are produced for sale or importation into the United States or Canada. The term “Incomplete Vehicle Types” in these statements refers to the types of the vehicles depicted on this manual’s cover and listed in the chart on the previous page.

The number preceding each Statement of Conformity refers to the number designation for a Part or a Section of Part 571 of the Federal Motor Vehicle Safety Standard.

The statements provided for each safety standard number are appropriate compliance representations for each Canadian safety standard number if this incomplete vehicle, identified by the VIN on the front of the document, was manufactured by Ford Motor Company for sale or use in Canada, except as may be noted at the conclusion of each safety standard number.

101 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 101, Controls and Displays, if:

- The controls, displays, and their identifications supplied by Ford Motor Company are not removed, relocated, altered, or modified.
- The components, wiring, and power supply installed by Ford Motor Company to illuminate any control, display, or their identification are not removed or altered so as to affect lighting performance.
- Components added to the vehicle do not obstruct the driver’s ability to operate or visually locate the controls, displays, and their identifications.
- The driver-seat is not replaced, relocated, or modified other than for the addition of seat trim.

Any controls, displays, and illumination added to this vehicle must conform to the requirements of this Standard.

102 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 102, Transmission Shift Lever Sequence, Starter Interlock, and Transmission Braking Effect, if no alterations or adjustments are made to the transmission, shift cable, transmission outer shift lever, shift cable bracket, vacuum tubes, vacuum pump system, brake-shift interlock system, starter interlock system, wiring circuit from the interlock switch to the power source, and transmission gear selector indicator (PRNDL).

If an auxiliary transmission is added to this vehicle, it must conform to the requirements of this Standard.

103 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 103, Windshield Defrosting and Defogging Systems, if no alterations or adjustments are made to heater and blower assemblies, ducting, operating controls, electrical circuit from the blower assembly to the power source, windshield, coolant hoses from the radiator or engine to the heater, and if no obstructions are added that restrict or otherwise redirect the air flow from the defroster outlets to the windshield.

104 The statement below is applicable to all incomplete vehicle types:

This vehicle when completed, will conform to Standard 104, Windshield Wiping and Washing Systems, if no alterations are made to the windshield, the windshield wiping and washing system including the electrical circuit from the windshield wiping and washing motors to the power source, and if no obstructions are added that restrict or otherwise redirect fluid flow from the washer nozzles to the windshield.

105 INFORMATION

Reference information that may be helpful for center of gravity calculations is available on the Ford Body Builders Advisory Service (BBAS) website https://fordbbas.com, under "Publications". The program specific *Body Builder Layout Books* (BBLBs) contain chassis base curb weights, GAWR, CG locations and dimensional information. The Accessory weights are listed in the Ford eSourceBook, which can be found under "Vehicle Specifications". The “General” BBLB contains definitions, calculations and testing methods regarding vehicle center of gravity.

105 The statement below is applicable to all incomplete vehicle types when equipped with a hydraulic brake system:

This vehicle, when completed, will conform to Standard 105, Hydraulic and Electric Brake Systems, if:

- No alterations, modifications, or replacements are made to the following:
  - Service or parking brake system
  - Antilock brake system
  - Vacuum system
  - Wheels and tires
  - Brake system indicator lamp and wiring
  - Brake system reservoir labeling; label is not to be obstructed by additional under hood components
  - Suspension ride height or spring rate
  - Additional axles have not been added to the vehicle.
- Additional sound deadener or rustproofing material applied to the vehicle must not interfere with the proper parking brake cable function.
- The service or parking brake pedal assembly operation is not restricted by any alteration or added components.
- No part of add-on equipment, i.e., toolboxes, flatbed attaching brackets, etc., can interfere with proper movement of parking brake cables or airflow to rear brake assemblies.
- The maximum GAWR's and GVWR, as identified on the cover of this document, are not exceeded.
- The Vertical Center of Gravity of the completed vehicle (CG_v) in any loading condition must fall within the range defined by the equations in Table 1 for the applicable chassis configuration.

It is recommended that the Vertical Center of Gravity of the completed vehicle (CG_v) not exceed the following values in any vehicle loading condition, as measured from the ground:

Vehicle Completed as a Truck - 68 In.

Vehicle Completed as a Bus - 54 In.

WARNING:

Do not wrap the brake lines with any material that could cause water, dirt, sand or other foreign material to accumulate around the lines, potentially resulting in brake line damage or corrosion.

106 The statement below is applicable to all incomplete vehicle types:

The vehicle, when completed, will conform to Standard 106, Brake Hoses, if the brake hose assemblies supplied by Ford Motor Company are not removed, relocated, altered, or modified, and if no brake hose assemblies are added.

108 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 108, Lamps, Reflective Devices, and Associated Equipment, if all the required lighting equipment as indicated in Table 2 (identified by the codes R and S) is designed and installed in accordance with the requirements of Standard 108 and the directions contained in this compliance manual. Additionally, if the completed vehicle width is 2032 mm [80 in] or more, and/or the overall length is 9.14 meters [30 feet] or more, front and rear clearance lamps, and front and rear identification lamps, and/or intermediate side marker lamps, and reflex reflectors (not supplied by Ford Motor Company) are also required for compliance with Standard 108.

The items of equipment which are supplied by Ford Motor Company (identified by the code S in Table 2) are designed and installed to conform to all the applicable requirements of Standard 108. The completed vehicle, with these components installed, will conform to Standard 108 if the subsequent stage manufacturer does not remove, relocate, replace or modify such equipment or modify the power supply or wiring to such equipment, and does not complete the body in such a configuration as to impair the conformity to the photometric and/or visibility requirements of the installed lamps and reflective devices.

Specific requirements for the fitment of lighting and associated equipment are listed by incomplete vehicle type in Table 2.

Lamps, reflective devices, and associated equipment necessary to complete the vehicle from an incomplete vehicle stage must conform to the equipment, location, activation, visibility, photometric and performance requirements of Standard 108 and to the applicable SAE standards or recommended practices referenced or sub-referenced in this Standard.

All electrical equipment added to the vehicle by subsequent stage manufacturers must conform to the practices set forth in the “Electrical System” Section of the *Ford General Body Builders Layout Book*, which can be found at https://fordbbas.com, under "Publications".

108 Canadian Requirements:

The preceding statements for Standard 108 are appropriate compliance representations for CMVSS 108, Lighting System and Retroreflective Devices, if this vehicle is manufactured for sale and use in Canada.

111 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 111, Rear Visibility, if:

- The mirrors and their mounts as supplied by Ford Motor Company are not removed, relocated, replaced, nor altered.
- No structural modifications are made to the body which would affect the stability of the mirror mounts.
- Any modifications or additions made to the incomplete vehicle must not adversely affect the driver's view to the rear in the outside mirrors along both sides of the vehicle.
- The driver's seat is not replaced, relocated or modified.

113 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 113, Hood Latch Systems, if the hood latch system as provided by Ford Motor Company is not removed or altered.

115 Canadian Requirements:

The statements for Part 565 are appropriate compliance representations for CMVSS 115, Vehicle Identification Number, if this incomplete vehicle was manufactured for sale or use in Canada.

116 The statement below is applicable to all incomplete vehicle types with a hydraulic brake system:

This vehicle, when completed, will conform to Standard 116, Motor Vehicle Brake Fluids, provided any brake fluid added or replaced conforms to the appropriate DOT specification labeled on the brake master cylinder and contaminants are not introduced into the hydraulic brake system.

NOTE:

CG Restrictions listed in the Statements of Conformity in this manual are only intended to ensure the completed vehicle will meet the applicable F/CMVSS standard for which they are listed. The location of vehicle CG is also a significant factor in the stability and handling of the vehicle. It is the responsibility of the final stage vehicle manufacturer to ensure that the vehicle achieves acceptable stability and handling performance in all loading conditions.

TABLE 2
STANDARD 108 LIGHTING EQUIPMENT

Item		Completed as Truck	Completed as Truck Tractor
Headlamps with Hi/Lo beam switching		S (1)	S (1)
Daytime Running Lamps (when provided)		N/S (2)	N/S (2)
Tail Lamps		S (3)	S
Stop Lamps		S (3)	S
License Plate Lamps		S (3)	S
Reflex Reflectors	- Side Front - Side Intermediate - Side Rear - Rear	S R (4) R S	S R N S
Side Marker Lamps	- Front - Side Intermediate - Rear	S R (4) R	S R N
Back-Up Lamps		S (3)	S
Turn Signal Lamps	- Front - Rear	S S (3)	S S
Turn Signal Operating Unit		S	S
Turn Signal Flasher		S (5)	S (5)
Vehicular Hazard Warning Signal Operating Unit		S	S
Vehicular Hazard Warning Signal Flasher		S	S
Identification Lamps	- Front - Rear	S (3) R	S (3) N
Clearance Lamps	- Front - Rear	S (3) R	S (3) N
Retroreflective Material Conspicuity System	- Back of Cab or Sleeper - Rear Mud Flaps	N N	S (6) S

S Required on completed vehicle and supplied with the incomplete vehicle.
R Required on completed vehicle and <u>not</u> supplied with the incomplete vehicle.
N Not required for completed vehicle.

1) *Due to variations in finished vehicle attitude, headlights should be aimed after all modifications are completed.*
2) *Required on Canadian vehicles; optional on U.S. vehicles.*
3) *Lamps not supplied if vehicle is ordered with a delete lamps option.*
4) *Required only if vehicle is over 30 feet long.*
5) *Turn signal flasher function is contained within the Body Control Module features. All chassis cab vehicles are configured to provide the function of a variable-load turn signal flasher. Turn signal lamp failure indication is not supplied with the incomplete vehicle and will be required if the completed vehicle does not meet the exemption criteria in S9.3.6 of FMVSS 108.*
6) *Retroreflective material for installation is supplied for Truck Tractors ordered without mud flaps.*

TABLE 1

GVWR	Brake System	Maximum CG_v (in) (1)(2)	Minimum CG_v (in) (1)(2)
All	Hydraulic (FMVSS 105)	(4.55 * CG_h) - (1.75 * WB)	(4.55 * CG_h) - (3.21 * WB)
All	Air (FMVSS 121)	(4.55 * CG_h) - (2.02 * WB)	(4.55 * CG_h) - (3.29 * WB)

(1) Completed Vehicle Vertical CG (CG_v) as measured from the ground
(2) Completed Vehicle Horizontal CG (CG_h as measured from the Centerline of the Front Axle, and Wheelbase (WB) must be expressed in Inches when used in the equations.

119 The statement below is applicable to all incomplete vehicle types:

All tires supplied by Ford Motor Company are in full conformity with Standard 119, New Pneumatic Tires for Motor Vehicles with a GVWR of More Than 4536 Kilograms (10,000 Pounds) and Motorcycles.

If additional tires are installed, or the existing tires are replaced by subsequent stage manufacturers, they must conform to the requirements of Standard 119.

120 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to the tire and rim selection requirements of Standard 120, Tire Selection and Rims and Motor Home / Recreation Vehicle Trailer Load Carrying Capacity Information for Motor Vehicles with a GVWR of More Than 4536 Kg (10,000 Pounds), if:

- The tire and rim assemblies are not removed, altered, or replaced.
- The Incomplete Vehicle Information Label that is either provided with the incomplete vehicle or affixed to the vehicle is not removed.

The final stage manufacturer also must, in accordance with the requirements of Standard 120 and Part 567 of Title 49, Code of Federal Regulations (Section 6.6 of the Canadian Motor Vehicle Safety Regulations), affix a Certification (Compliance) label to the completed vehicle indicating tire size, rim size, cold inflation pressure, and the gross axle weight ratings. This information is provided on the label that is affixed to the cover of this manual.

121 Exemptions—Standard 121, Air Brake Systems

The following statements concerning Standard 121, Air Brake Systems, do not apply to:

- Any vehicle equipped with an axle that has a GAWR of 29,000 pounds or more.
- Any truck or bus that has a speed attainable in 2 miles of not more that 33 mph.
- Any truck that has a speed attainable in 2 miles of not more than 45 mph, an unloaded vehicle weight that is not less than 95% of its GVWR, and no capacity to carry occupants other than the driver and operating crew.

121 The statement below is applicable to all incomplete vehicle types when equipped with an air brake system (see note on exemptions):

This vehicle, when completed, will conform to Standard 121, Air Brake Systems, if:

- The vehicle is equipped with the tires and wheel-rims provided on the vehicle by Ford Motor Company.
- There have been no modifications to the engine, air compressor, or engine/compressor drive system, as provided by Ford Motor Company, which affect the maximum governed engine speed (RPM) or related air compressor performance at engine maximum governed speed (RPM).
- No connections are made into:
  1) the air line tubing or fittings for the parking brake system
  2) the rear axle emergency system (modulated spring brake system)
  3) the air supply and signal lines to the rear chassis relay valve(s), or
  4) the air delivery lines to the front axle brakes and quick release valve.
- No connections are made between the check valve and the reservoir port for air supply
- Additional reservoir(s) added to the vehicles, as sold by Ford Motor Company, are equipped with manually operated drain valve(s) for each air reservoir added.
- For reservoir volume added to the air system, the compressor build-up time from 85 psi to 100 psi at the engine's maximum recommended RPM shall be less than S where:

$$S = [(V_m + V_a) / V_r] \times 25$$

S = Time in seconds
V_m = Reservoir volume for vehicle as received from Ford Motor Company
V_a = Accessory reservoir volume
V_r = Reservoir volume required to meet Standard 121 equal to total air brake chamber rated volume x 12

- Each added reservoir shall be capable of withstanding an internal hydrostatic pressure of five times the compressor cutout pressure or 500 psi, whichever is greater, for 10 minutes.
- Modifications have not been made to the suspension or steering systems of the vehicle, as sold by Ford Motor Company, which could, in any way, adversely affect vehicle or related brake system performance.
- Electrical or mechanical components and related wiring of the pressure warning system, provided by Ford Motor Company on the incomplete vehicle, have not been modified in any way.
- Additional axles have not been added to the vehicle as sold by Ford Motor Company and the GVWR and GAWR are identical to the incomplete vehicle ratings on the cover of this manual.
- Other than as provided above, there have been no modifications, deletions, replacement, or alterations to any component or related hardware of the air brake system provided on the vehicle by Ford Motor Company.
- The maximum GAWR's and GVWR, as identified on the cover of this document, are not exceeded.
- The Vertical Center of Gravity of the completed vehicle (CGv) in any loading condition must fall within the range defined by the equations in Table 1 for the applicable chassis configuration.

It is recommended that the Vertical Center of Gravity of the completed vehicle (CGv) not exceed the following values in any vehicle loading condition, as measured from the ground:

- Vehicle Completed as a Truck - 68 In.
- Vehicle Completed as a Bus - 54 In

Note: As a guide, the vertical center of gravity height of the incomplete vehicle, as sold by Ford Motor Company, may be assumed to be the distance from the ground to the top of the frame siderail in unladen state, measured at the longitudinal midpoint of the vehicle.

124 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 124, Accelerator Control Systems, if:

- No alterations are made to the accelerator pedal, mounting hardware, adjustable pedal mechanism, or other components of the accelerator control system as installed by Ford Motor Company.
- No equipment is added nor existing equipment modified which would restrict operation of the accelerator control system.
- No alterations are made to the Pedal Position Sensor and all associated hardware and wiring.

136 The statement below is applicable to the incomplete Truck Tractor Cab completed as a Truck Tractor with a GVWR greater than 11,793 kg [26,000 lb]:

This vehicle, when completed, will comply to Standard 136, Electronic Stability Control Systems For Heavy Vehicles, if:

- No modifications have been made to any components of the braking system, suspension system, wheels or tires.
- No modifications are made to the vehicle wheelbase.

205 The statement below is applicable to the all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 205, Glazing Materials, if no alterations to, or replacements of, the installed glazing materials are made, and if additional glazing material installed by a subsequent stage manufacturer conforms to the requirements of Standard 205.

206 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 206, Door Locks and Door Retention Components, if no alterations or adjustments are made to the door, door pillar structure, door locks, door latches, striker plates, hinges, and attaching hardware as installed by Ford Motor Company.

Any door added to this vehicle by a subsequent stage manufacturer must be equipped with door locks and door retention components that conform to the requirements of Standard 206.

207 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 207, Seating Systems, if no alterations are made to the seat assemblies, their anchorages, the floor pan, or floor pan reinforcements. Any seating system added to this vehicle must conform to applicable requirements of Standard 207.

208 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 208, Occupant Crash Protection, if no deletions or replacements are made to the seat belts, and attaching hardware, and if no action by subsequent manufacturers is taken which would impair the integrity of the seat belt system.

209 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 209, Seat Belt Assemblies, if no alterations or replacements are made to the seat belt assemblies, and attaching hardware, and if no action by subsequent manufacturers is taken which would impair the integrity of the seat belt system provided, and if no additional belt assemblies are added to the vehicle.

210 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 210, Seat Belt Assembly Anchorages, if no alterations are made to the seat belt anchorages, seat belt assemblies, floor pan, floor pan reinforcements, and rear cab sill, and if no seat belt assemblies, lap belt anchorages, or shoulder belt anchorages are added.

213 The statement below is applicable to all incomplete vehicle types:

Conformity with Standard 213, Child Restraint Systems, cannot be determined based upon the components supplied on the incomplete vehicle; accordingly Ford Motor Company makes no representation as to conformity with this Standard.

217 The statement below is applicable to the Chassis Cab:

Conformity with Standard 217, Bus Emergency Exits and Window Retention, cannot be determined based upon the components supplied on this incomplete vehicle; accordingly, Ford Motor Company makes no representation as to conformity with this Standard.

301.1 The statement below is applicable to all incomplete vehicle types:

This incomplete vehicle does not comply with CMVSS Standard 301.1, LPG Fuel System Integrity. Ford Motor Company makes no representation as to conformity with this Standard.

301.2 The statement below is applicable to all incomplete vehicle types:

This incomplete vehicle does not comply with CMVSS Standard 301.2, CNG Fuel System Integrity. Ford Motor Company makes no representation as to conformity with this Standard.

302 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform with Standard 302, Flammability of Interior Materials, if no alterations are made to those components covered by the Standard which are installed by Ford Motor Company and all components covered by Standard 302, which are added to the incomplete vehicle by subsequent stage manufacturers meet the flammability requirements of the Standard.

304 U.S. Requirements:

The statement below is applicable to all incomplete vehicle types:

This incomplete vehicle does not comply with Standard 304, Compressed Natural Gas Fuel Container Integrity. Ford Motor Company makes no representation as to conformity with this Standard.

403 The statement below is applicable to all incomplete vehicle types:

This incomplete vehicle does not comply with Standard 403, Platform Lift Systems for Motor Vehicles. Ford Motor Company makes no representation as to conformity with this Standard.

404 The statement below is applicable to all incomplete vehicle types:

This incomplete vehicle does not comply with Standard 404, Platform Lift Installations in Motor Vehicles. Ford Motor Company makes no representation as to conformity with this Standard.

Part 393.67 Parts and Accessories Necessary for Safe Operation – Liquid Fuel Tanks

The fuel tanks listed below will conform to Part 393.67, Parts and Accessories Necessary for Safe Operation – Liquid Fuel Tanks, if the fuel tank as provided by Ford Motor Company is not altered on the completed vehicle.

Part 565 U.S. Requirements:

This vehicle, when completed, will conform to Part 565, Vehicle Identification Number (VIN) Requirements, if the vehicle identification number printed on the label affixed to the cover of this manual is mounted and displayed in accordance with the requirements of this Standard.

Part 565.13 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Part 565.13, General Requirements, if the Vehicle Identification Number (VIN) tag mounted on the cowl top and visible through a clearance hole in the windshield blackout is not removed, altered, nor modified and no actions are taken by the subsequent stage manufacturer that would obstruct the readability of the Vehicle Identification Number tag mounted on the cowl top.

Part 567 / CMVSR Section 6.6

The statement below is applicable to all incomplete vehicle types:

This incomplete vehicle does not comply with the intermediate and final stage manufacturer requirements of Part 567 - Certification, nor the Canadian Motor Vehicle Safety Regulations, Section 6.6 – Final-stage Manufacturer's Compliance Label. It is the responsibility of the intermediate and final stage manufacturers to provide additional labeling to meet these requirements. Ford Motor Company makes no representation as to conformity.

1106 Canadian Requirements:

These vehicles, when completed, will conform to Standard 1106, Noise Emissions, Section 4, if noise control devices or elements of design are not modified, removed, or rendered inoperative. Examples of such devices or elements of design are:

- Fender apron absorbers, fender apron barriers, underbody noise shields and acoustic absorption material.
- Engine speed governor or electronic control intended to control maximum engine speed.
- Engine air duct, air intake choke or silencer, air cleaner and air cleaner element.
- Exhaust system components including the catalyst inlet

CANADIAN VEHICLES

(Vehicles to be completed for sale or use in Canada)

VEHICLE IDENTIFICATION

Refer to the “Vehicle Description” section of this manual for additional information. Incomplete vehicles produced by Ford Motor Company require, for certain applications, optional Prep Packages or trim codes which are listed on the Completed Vehicle Types chart.

DAYTIME RUNNING LAMP (DRL)

Compliance representations for CMVSS 108, Lighting System and Retroreflective Devices, are in the “Statements of Conformity” section of this manual.

CANADIAN RADIO FREQUENCY INTERFERENCE (RFI) INFORMATION

All vehicles powered by spark ignition engines (e.g.: gasoline, natural gas, or propane engines) and manufactured in Canada or for sale or use in Canada are subject to Canadian Radiocommunication Regulations per Interference-Causing Equipment Standards (ICES-002) and applicable test method according to “CAN/CSA-C108.4-06”. Violation of these regulations is punishable by fine or imprisonment. This Ford-built incomplete vehicle was designed and manufactured to be capable of meeting the regulatory requirements or such modifications thereof as may have been authorized by the Department of Communications. However, because Ford Motor Company has no control over how this incomplete vehicle is completed by subsequent stage manufacturers, Ford Motor Company does not represent that the completed vehicle incorporating the Ford built components will comply with applicable requirements.

The following information is supplied to subsequent stage manufacturers to help them avoid increasing the RFI emissions of this vehicle in the course of completing it.

For any completed vehicle, additional measures may be needed to adequately suppress RFI emissions. Affected components could include spark plugs, ignition wires, ignition coils, ground straps, ignition component shields, accessory drive belts, instrument voltage regulator suppressor assembly, and ignition coil suppressor assembly.

More specifically:

- All components required to suppress RFI emissions, which are removed during service, repair, or completion of the vehicle, must be reinstalled in the manner in which they were installed by Ford Motor Company.
- Shields on ignition coils must remain installed.
- Replacement spark plugs, ignition wires, and ignition coils must be equivalent in their RFI suppression properties to original equipment.
- Electrical grounds on all components must be retained.
- Metallic components installed on the body or chassis must be grounded to the chassis.
- Electrical circuits added to the vehicle must not be installed near the high voltage ignition components.
- Only “static conductive” accessory drive belts should be used. Fan, water pump, power steering, and other belts should be of the OEM type or equivalent that will not build up a static electrical charge.
- Engine compartment wiring must not be rerouted in any manner.
- The Powertrain Control Module (PCM) must not be relocated from the position as installed by Ford Motor Company.

Additional guidance for installing two-way mobile radios can be found via the web at www.fordemc.com/docs/download/Mobile_Radio_Guide.pdf

EMISSION CERTIFICATION INFORMATION

CAUTION:

U.S.:

Vehicles are emission certified for registration in specific areas of the United States. For example, **vehicles certified and labeled for sale in California can not be sold in the states that require Federally certified vehicles and these vehicles certified to Federal standards can not be sold in states that require California certified vehicles.** It is the subsequent stage manufacturer's responsibility to purchase a vehicle certified for the state/area in which the vehicle will be sold. EPA has stated that under certain circumstances they will not enforce these requirements. For further guidance consult EPA's "policy on cross border sales requirements. of California vehicles."

CANADA:

If the completed vehicle is intended for sale or use in Canada, the intermediate or final stage manufacturer must insure that the incomplete vehicle is ordered through a Canadian dealer or is ordered from Ford Motor Company with the appropriate Canadian market option code. Failure to do so may result in an incomplete vehicle that is built with an emissions system and labeling that are not in compliance with the requirements of the Canadian Environmental Protection Act

VEHICLE EMISSION CONTROL INFORMATION LABEL

To meet United States Environmental Protection Agency regulations, the Vehicle Emission Control Information (VECI) label must be affixed in the engine compartment in a location that is readily visible after installation and in such a manner that it cannot be removed without destroying or defacing the label. The label shall not be affixed to any equipment that is easily detached from the vehicle.

When the VECI label is supplied, but not attached to the vehicle, it must be permanently mounted in a readily visible location to meet the preceding requirements. No components shall be installed which visibly obscure the label in any way.

For Canadian requirements, consult On-Road Vehicle and Engine Emission Regulations (SOR).

EMISSION CONTROL HARDWARE

Any body builder, installer, or subsequent stage manufacturer must assure that all emission control hardware furnished with incomplete vehicles is on the vehicle and is operational and that applicable instructions for incorporating such hardware into the completed vehicle's electrical or mechanical systems are strictly followed.

Further, to avoid any question of certification coverage, approval of any modification or use of an engine or vehicle which may alter or render inoperative any of the emission control components must be obtained from the United States Environmental Protection Agency by the manufacturer making such modification or use prior to distribution, sale, offering for sale, introduction, or delivery for introduction of the subject vehicle into U.S. commerce. Additionally, the manufacturer making such modification or use must obtain approval from the California Air Resources Board if the new vehicle will be delivered for sale or use in the State of California.

HIGH ALTITUDE REQUIREMENTS

United States Environmental Protection Agency regulations do not contain unique emission certification requirements for trucks that will be sold or delivered to customers for principal use above 1,219 m [4,000 ft].

EXHAUST EMISSIONS

All Heavy Duty engines (for Canada and all U.S. States except California, a Heavy Duty engine is an engine used to propel a vehicle exceeding 8500 pounds GVWR or 6000 pounds curb weight, or that exceeds 45 square feet of frontal area, for California a Heavy Duty engine is an engine used to propel a vehicle in excess of 6000 pounds GVWR) have been certified to the applicable Federal and California exhaust emissions and evaporative emissions requirements for Heavy Duty engines. The label affixed to the cover of this manual states the maximum GVWR and GAWR's to which the vehicle may be completed. It is the responsibility of the subsequent manufacturer to assure that the completed vehicle is consistent with the weight class for which the engine was certified.

Body builders, installers, or any other subsequent stage manufacturer may not delete or make modifications that disable the engine emission control hardware furnished with incomplete vehicles. Any instructions pertaining to incorporation of such hardware into the completed vehicle's electrical or mechanical systems should be strictly followed.

If the body builder, installer, or subsequent stage manufacturer adds additional weight to the vehicle, beyond Ford's GVWR, or makes any modification, revision, or removal of a component included in the emissions certification application that applies to that engine or vehicle, or otherwise alters the effectiveness of the exhaust emissions control system, permission must be obtained from the United States Environmental Protection Agency by the body builder, installer, or subsequent manufacturer making such modification, revision, or removal prior to distribution, sale, offering for sale, introduction, or delivery for introduction of the subject vehicle into U.S. Commerce. In Canada, this same requirement applies, and permission must be obtained from Environment Canada. Additionally, any body builder, installer, or subsequent stage manufacturer making such addition, modification, revision, removal, or alteration must obtain approval from the California Air Resources Board (CARB) if the new vehicle will be delivered for sale or use in the State of California.

EXTERIOR NOISE

New vehicles with a gross vehicle weight rating in excess of 4536 kg [10,000 lb.], with a partially or wholly enclosed operator's compartment and manufactured for use in the United States, as completed, must comply with U.S. Environmental Protection Agency exterior noise emission regulations for medium and heavy trucks (40 CFR Part 205, Subpart B) which establish a noise emission limit of 80 dB(A).

UNLEADED GASOLINE LABEL

Regulations no longer require the manufacturer to affix permanent labels reading "Unleaded Gasoline Only" or "Unleaded Fuel Only" to vehicles destined for sale in the United States or Canada. Such labels may, however, be required for vehicles sold into other markets. It is the responsibility of the body builder, installer, or any subsequent manufacturer to properly label vehicles for the market in which they are sold.

WARRANTY AND MAINTENANCE

A copy of the appropriate Ford Owner's Manual and Warranty Guide must be installed in every vehicle prior to sale to the ultimate purchaser in order to provide emission systems warranty information and maintenance schedules. It also provides, where required by EPA noise control regulations for vehicles with GVWR over 4536 kg [10,000 lb.], noise emissions warranty information, instructions for maintenance, use, and repair of vehicle noise emission control systems, a maintenance record format, and list of prohibited tampering acts.

IMPORTANT:

If the vehicle is modified such that it will not comply with applicable emission standards throughout its useful life, the body builder, installer, or subsequent stage manufacturer will be considered a manufacturer for purposes of complying with U.S. Federal, California, or Canadian exhaust and evaporative emission requirements, and Federal fuel economy standards, labeling, and certain other requirements.

IMPORTANT:

For purposes of Government Regulation, a body builder, installer, or any subsequent manufacturer may be considered a manufacturer.

TAMPERING WITH NOISE CONTROLS

Federal law prohibits the removal or rendering inoperative by any person, other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into such vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use. Federal Law also prohibits the use of such vehicle after such device or element of design has been removed or rendered inoperative by any person. Among those acts presumed to constitute tampering are the acts listed below:

- Removal of fender apron absorbers, fender apron barriers, underbody noise shields, or acoustical absorptive material.
- Removal of or rendering inoperative the engine speed governor so as to allow engine speed to exceed manufacturer's specifications.
- Removal or modification of air duct, air intake choke or silencer, air cleaner, or air cleaner element.
- Removal of, or rendering inoperative, exhaust system components including the catalyst inlet pipe, muffler, outlet pipe, resonator, or diffuser.
- Removal of the fan shroud. Removal of or rendering inoperative the fan clutch.

New vehicles manufactured for sale in Canada must comply with applicable provisions of Canada Motor Vehicle Safety Standard 1106, Noise Emissions.

MALFUNCTION INDICATOR LIGHT (MIL)

The "Malfunction Indicator Light" is used to indicate malfunctions of the engine's emission control system and certain powertrain emissions-related components.

- For all incomplete vehicles covered by this manual, the MIL is Ford installed and operational in the instrument cluster. If an alternate instrument cluster is utilized, the final stage manufacturer mist install an operational MIL in the instrument cluster. The MIL must be located on the driver's side instrument panel, be of sufficient illumination and location to be readily visible under all lighting conditions and shall be amber in color when illuminated. The MIL, when illuminated, shall display the phrase "Check Engine" or "Service Engine Soon". The word "Powertrain" may be substituted for "Engine" in the previous phrases. Alternatively, the ISO engine symbol may be substituted for the word "Engine" or for the entire phrase. This is a requirement for emission certification.

EVAPORATIVE EMISSIONS

All Federal light and heavy duty trucks and all California vehicles with gasoline engines are required to comply with evaporative emissions requirements established by the Environmental Protection Agency or the California Air Resources Board. Production fuel systems supplied on incomplete trucks manufactured by Ford Motor Company comply with these requirements. If the subsequent stage manufacturer adds to or modifies the air intake system or fuel system in any manner, it becomes the responsibility of the modifier to assure compliance with the applicable regulations.

CALIFORNIA FUEL VAPOR RECOVERY

California regulations require that the vehicle fuel systems be designed to accommodate a vapor recovery fueling nozzle including unobstructed access to the fill pipe. Fuel filler pipes installed as shown in Figure 2 in the "Fuel System Information" section of this manual will comply with the "Specifications For Fill Pipes and Openings of Motor Vehicle Fuel Tanks" referenced in Title 13 California Administrative Code provided no part of the aftermarket body, as installed, intrudes within a 254 mm [10 in] radius cylinder centered on the fuel filler port, with its axis parallel to the ground, starting at the outer-most surface of the Ford supplied fuel filler housing and projecting outward away from the body.

OZONE DEPLETING SUBSTANCE (ODS)

The Clean Air Act of 1990, Section 611 requires any product (i.e., completed vehicle) containing or manufactured with any Class I Ozone Depleting Substance on, or after, May 15,1993 must be identified with a "clearly and conspicuously attached label."

Ford Motor Company has eliminated Class I ODS from its manufacturing processes. All Ford Truck incomplete vehicles will not have Class I ODS content.

Manufacturers, including subsequent stage manufacturers, are required to label their products if the product, including any component (whether manufactured by that manufacturer or not), contains a Class I ODS or if the manufacturer used a Class I ODS in the manufacturing of the product. If a vehicle is so affected by a Class I ODS, that information must be placed on a product warning label. See EPA regulations on wording, placement, size, and combining labels; in Canada consult the appropriate Provincial or Territorial Ministry of Environment.

GREEN HOUSE GAS (GHG) REFRIGERANT REGULATION

- EPA limits refrigerant leakage to 11.0 grams per year or 1.50% of the refrigerant capacity per year, whichever is greater, per 40CFR 1037.115(e). This vehicle, when completed, will meet the leakage standard in 40CFR 1037.115(e) if no alterations are made to the vehicle air conditioning system as delivered and no additional air conditioning systems are added.
- CARB
  - The state of California limits the air conditioning refrigerant leak rate to 11.0 grams per year or 1.50 percent of the nominal refrigerant charge per year, whichever is greater, per 17 CCR § 95663.
  - This vehicle, when completed, will meet the leakage standard in 17 CCR § 95663 if no alterations are made to the vehicle air conditioning system as delivered and no additional air conditioning components are added.
  - If additional air conditioning components are added by a secondary vehicle manufacturer, or if the air conditioning system is otherwise modified by the secondary vehicle manufacturer, the final completed system must meet the leakage standard in 17 CCR 95663.

CALIFORNIA MOTOR VEHICLE EMISSION CONTROL LABEL

To meet California emission certification regulations, the Vehicle Emission Control Information (VECI) label must be welded, riveted, or otherwise permanently attached to an area within the engine compartment or to the engine in such a way that it will be readily visible to the average person after installation of the engine in a vehicle. In selecting an acceptable location, the manufacturer shall consider the possibility of accidental damage (e.g., possibility of tools or sharp instruments coming in contact with the label). The label shall be affixed in such a manner that it cannot be removed without being destroyed or defaced, and shall not be affixed to any part which is likely to be replaced during the vehicle's useful life. As used in these specifications, readily visible to the average person shall mean that the label shall be readable from a distance of 460 mm [18 in] without any obstructions from vehicle or engine parts (including all manufacturer available optional equipment), except for flexible parts, (e.g., vacuum hoses, ignition wires). Alternately, information required by these specifications to be printed on the label shall be no smaller than 8-point type size provided that no vehicle or engine parts (including all manufacturer available optional equipment), except for flexible parts that can be moved out of the way without disconnection, obstruct the label.

Completed vehicles for retail sale in California require a machine-readable Vehicle Identification Number (VIN) barcode label made of paper, plastic, metal, or other permanent material which shall be affixed in a readily visible location to either the door-latch post next to the driver's seating position, the door edge that meets this door-latch post, or above the instrument panel in a location clearly visible through the lower left corner of the windshield. All incomplete vehicles will conform to this standard.

For the VECI and VIN labels, sufficient clearance shall be provided to use a non-contact barcode reading wand. For the VECI label, the label and any adhesives used shall be designed to withstand typical vehicle environment conditions in the area where the label is attached for the vehicle's total expected life. Typical vehicle environmental conditions shall include, but are not limited to, exposure to engine lubricants and coolants (e.g., gasoline, motor oil, brake fluids, water, ethylene glycol), under hood temperatures, steam cleaning, and paints or paint solvents.

RADIO FREQUENCY INTERFERENCE (RFI)

The ignition system on your vehicle has been designed to be capable of compliance with RFI requirements established by the Canadian government. However, because Ford Motor Company has no control over how an incomplete vehicle is completed by subsequent stage manufacturers, Ford Motor Company does not represent that the completed vehicle incorporating the Ford-built components will comply with those requirements. Any ignition system component (i.e.: spark plugs, ignition wiring, coil suppressor assembly, etc.) that is replaced should be replaced by the same Ford Motor Company part number or equivalent to maintain RFI suppression.

While there are currently no RFI regulations in the United States specifically applicable to automotive ignition systems, all Ford Motor Company trucks built with an ignition system use the same or equivalent components to those supplied on Canadian vehicles.

Ford Motor Company recommends that all ignition system service be performed at a Ford authorized service facility to help hold RFI emissions levels to a minimum. Additional RFI information is contained in the "Canadian Vehicles" section of this manual.

Devices that emit radio frequency (RF) energy such as AM/FM radios, mobile telecommunications systems (two-way radios, telephones), and radio controlled security systems are subject to the rules and regulations of the Federal Communications Communication (FCC), including 47 CFR Parts 2 and 15. Any such system installed in a vehicle should comply with those rules and should be installed only by a qualified technician. In addition, to ensure continued compliance with the FCC's regulations, RF devices must not be modified or changed in a manner not expressly approved by Ford Motor Company. RF devices particularly, if not properly installed, may adversely affect the operation of the vehicle. For example, such systems when operated may cause the engine to stumble or stall. In addition, such systems themselves may be damaged or their operation affected by the operation of the vehicle. (Citizens Band [CB] transceivers, garage door openers, and other transmitters whose power output is 5 watts or less, ordinarily will NOT affect vehicle operation.) Because Ford Motor Company has no control over the operation or manufacture of such systems or their installation, Ford Motor Company cannot assume responsibility for any adverse effects or damage if this equipment is used.

Additional guidance for installing two-way mobile radios can be found via the web at www.fordemc.com/docs/download/Mobile_Radio_Guide.pdf.

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